

REMARKS

Claim 1 has been amended for correction of the language and also for clarification

The Examiner has rejected claims 1 - 9 and 12 of the present application under 35 USC 102(b) as being anticipated by Hilgendorff et al. (US 4,695,380) and he has rejected claims 10 and 11 under 35 USC 103(a) as being unpatentable over Hilgendorff (380)

Hilgendorff (US 4,695,380) (assigned to the assignee of the present application) discloses a fluid treating apparatus with a plurality of membrane elements arranged in a stack along the apparatus axis within a housing having endplates and a central channel 4 for removing permeate from the apparatus and fluid inlet and outlet openings 3 and 5 for conducting a fluid to be treated through the apparatus. The apparatus comprises a single stack of filter elements consisting of membrane pillows arranged transverse to the longitudinal axis of the stack and the fluid is conducted in a meander-like pattern back and forth transverse to the general fluid flow direction through the stack.

In contrast, in the apparatus as defined in claim 1 of the present application, a pressure housing is provided with a fluid inlet, a retentate outlet and a permeate outlet and a plurality of stacks of membrane filter elements are arranged in the pressure housing adjacent one another in the longitudinal direction of the pressure housing. The stacks are separate and each includes a plurality of spaced membrane filter elements arranged in spaced relationship and in a series flow pattern in such a way that the fluid is conducted in a meander-like pattern back and forth (in the longitudinal direction of the general flow through each stack)

Adjacent stacks are joined in the pressure housing and each stack includes a fluid inlet and a fluid outlet so arranged that the fluid outlet of one stack is in flow communication with the inlet of the next adjacent stack (Claim 2)

According to claim 3, a separating element is arranged between adjacent stacks of filter elements and the outlets and inlets are incorporated into the separating element

The separating element 10 is arranged between adjacent stacks of filter elements 11 and is compressed by bolts passing through aligned holes 11 in the periphery of the end plates 1

and 2. A housing is formed by stacked outer rings 12. This arrangement does not include a plurality of separate stacks of membrane filter elements arranged in a pressure housing one adjacent the other in the longitudinal direction of the pressure housing as defined in claim 1 of the present application and of course, there are no separate stacks of membrane filter elements to be joined in a series flow pattern so that the fluid flows through the apparatus from stack to stack.

The apparatus according to the invention as a whole has really little in common with the apparatus as disclosed in the cited reference so that it is not seen how the Examiner can possibly consider the apparatus according to the invention and as defined in claim 1 to be anticipated by the cited reference.

Reconsideration of the Examiner's rejection of claim 1 under 35 USC 102 is therefore respectfully requested.

It is furthermore, noted that, since the reference cited by the Examiner does not disclose the essential features as claimed in claim 1, which features are considered to represent the inventive contribution of the present application, the apparatus as defined could not possibly be considered to be obvious from the cited reference.

As pointed out above also, claims 2 and 3 define features which are not disclosed in the cited reference either so that it cannot be said credibly that these claims are anticipated by the cited references.

The remaining claims 4 to 15 disclose features which are considered to be advantageous in connection with the present invention as claimed in claim 1. These claims are all dependent directly or indirectly on claim 1 and therefore include all the features of claim 1, so that they should be considered to be patentable already for that reason.

Reconsideration also of claims 4 to 15 and allowance of claims 1 -- 15 as amended is solicited.

Respectfully submitted.

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims

Claim 1 has been amended as follows:

1. (Amended) An apparatus for filtering and separating fluids, comprising: a pressure [tight] housing having a fluid inlet, a retentate outlet and a permeate outlet, a plurality of separate stacks of membrane filter elements arranged in said housing adjacent one another in the longitudinal direction of said pressure housing and being joined such that said fluid is conducted through said stacks of membrane filter elements in a series flow pattern, each stack including a plurality of spaced filter elements in the form of membrane pillows arranged in spaced relationship around which fluid flow is conducted in a meander-like pattern through each [to] stack.

Claim 6 has been amended as follows:

6. Amended An apparatus according to claim 3, wherein said membrane pillows are arranged in said stack [in a longitudinally displaced field] disposed with respect to each other in said longitudinal direction such that each alternate membrane pillow has one end projecting from said stack and disposed in engagement with the adjacent separating element thereby forming flow reversal areas at